

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
23 December 2004 (23.12.2004)

PCT

(10) International Publication Number  
**WO 2004/111353 A1**

(51) International Patent Classification<sup>7</sup>: **E02F 3/92**

(21) International Application Number:  
**PCT/BE2004/000084**

(22) International Filing Date: **10 June 2004 (10.06.2004)**

(25) Filing Language: **Dutch**

(26) Publication Language: **English**

(30) Priority Data:  
**BE 2003/0355 13 June 2003 (13.06.2003) BE**

(71) Applicant (for all designated States except US): **DREDGING INTERNATIONAL N.V. [BE/BE]; Haven 1025, Schelvedijk 30, BE-2070 Zwijndrecht (BE).**

(72) Inventor; and

(75) Inventor/Applicant (for US only): **CLYMANS, Etienne [BE/BE]; Peeterstraat 43, BE-2830 Tiselt (BE).**

(74) Agent: **HOORWEG, Petrus, Nicolaas; Arnold & Siedsma, Louiza-Marialei 8, B-2018 Antwerp (BE).**

(81) Designated States (unless otherwise indicated, for every kind of national protection available): **AE, AG, AL, AM,**

**AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.**

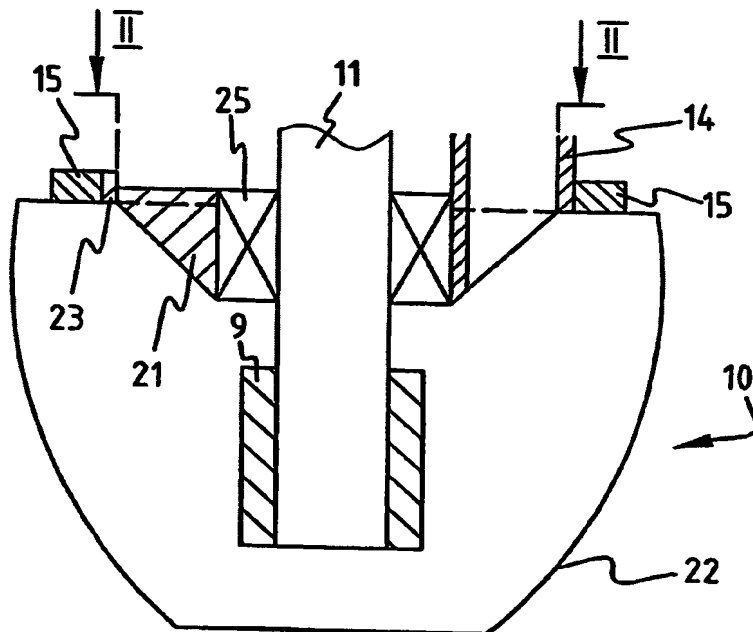
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): **ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).**

Published:

- with international search report
- with amended claims

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **DEVICE AND METHOD FOR DISLODGING AND RECOVERING DREDGING MATERIAL OF VARYING NATURE**



(57) Abstract: Device for dislodging and recovering dredging material of varying nature, comprising a bearing housing (25), a drive shaft (11) mounted therein for rotatingly driving with a determined torque a cutter head (10, 10') with a support ring (15, 15'), which cutter head is mountable on the drive shaft via a hub (9), and a suction pipe (13) which can be connected to a suction mouth (14, 14') which is surrounded by a fixed cutter shield (21, 21') which fills the space between the rotating support ring on the one side and the suction mouth and the bearing housing on the other, wherein a number of cutter heads with a different support ring diameter can be mounted on the drive shaft, wherein the support ring diameter is determined by the torque and the nature of the dredging material to be recovered.

BEST AVAILABLE COPY